## **ABSTRACT**

5

10

A method and apparatus for manufacturing patterns on a reticle blank comprising a substrate made from material transparent to UV irradiation and having a first surface and a second opposite surface, the first surface coated with a chrome layer. The method comprises providing ultra-short pulsed laser beams, focusing means, relative displacement facilitator for facilitating relative displacement of the reticle blank relative to said at least one of a plurality of target locations, and a controller for controlling the synchronization and operation of the laser beam source, the focusing means and the relative displacement facilitator. Ultra-short pulsed laser beam is irradiated in a predetermined pattern directed at the second surface and passing through the substrate, focused on the chrome layer or on its proximity.